Food Preservation Glossary

compiled by Annetta Cook and Carole Davis

Acid food—Food with a pH of 4.6 or below. An acid food can be safely processed in a boiling-water bath for specified times. Includes most fruits, tomatoes, and pickled vegetables.

Anaerobes—Bacteria capable of growing without air, as in a sealed container of canned food.

Blanching—Heating vegetables by immersion in boiling water, steaming, sauteing, or stewing to inactivate enzymes capable of causing quality changes in foods during freezer storage.

Boiling-water-bath Canner—A large kettle with lid, rack, and cover; must be deep enough to allow jars to be covered with 1 to 2 inches of water and still have additional height for water to boil actively. Suitable for processing acid foods.

Botulism—Foodborne illness caused from eating canned foods containing the toxin produced by *Clostridium botulinum*, an anaerobic bacterium. This organism can grow and produce toxin in sealed jars of canned foods that are improperly processed.

Canning—Preserving food in airtight rigid containers. Micro-organisms are destroyed by heat-processing containers of food at the temperature and time specified for each food. It is essential to follow reliable canning instructions exactly to insure a safe canned product that is free from botulism-causing bacteria and spoilage organisms.

Cold Pack—Raw, unheated food packed into canning containers and covered with boiling sirup, juice, or water.

Dehydrator—A device which removes moisture, a dryer.

Enzymes—Proteins involved in plant growth processes including maturation and ripening. Enzymes can cause loss of quality in food if they remain active during storage. They are destroyed by canning, or by blanching vegetables before freezing.

Freezer Burn—Small, white, dehydrated areas which occur on improperly wrapped frozen foods. This condition is harmless, but if extensive can cause food to become tough or lose flavor.

Freezing—Preserving food by storing at low temperatures. The recommended temperature for freezer storage is 0° F or below.

Headspace—The space between the top of food in a container and the container lid or closure.

Hot Pack—Food heated in sirup, water or steam, or juice, and packed hot into canning jars.

Hydrator (Vegetable Crisper)—A drawer-like section in refrigerators which protects fresh fruits and vegetables from drying out during refrigerator storage.

Low-acid Food—Food with pH above 4.6. A low-acid food requires processing at high temperature under pressure to destroy micro-organisms and insure a safe canned product. Includes all vegetables except tomatoes.

Micro-organism—Includes bacteria, molds, and yeasts, which when present in food can cause spoilage and even food poisoning. Therefore, they must be destroyed in canning foods or their growth prevented in freezing and drying foods.

Moisture-vapor-proof—Packing materials that prevent loss of moisture from foods during freezer storage. Examples include glass, rigid plastic, and metal freezer containers.

Moisture-vapor-resistant—Packing materials that protect foods from moisture loss during freezer storage. Examples include freezer wraps—paper, plastic, or foil—plastic bags, waxed freezer cartons.

Molds—Microscopic fungi which form air-borne spores (seeds) that may alight on food and grow into cottony mats or fuzz. Some molds or their end products may be harmful, and moldy vegetables or fruit should not be canned. Molds are destroyed by proper canning, but they may develop in leaky containers. Food from leaky containers or any canned food showing mold growth should be discarded without tasting.

Open-kettle Canning—Procedure whereby food is cooked in an ordinary kettle, then packed into hot jars and sealed. Jars of food receive no additional heat processing. This is a dangerous practice as spoilage organisms may enter the jar during the transfer of food from kettle to jar. In low-acid foods,

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Annetta Cook and Carole Davis are Food Technologists with the Consumer and Food Economics Institute, Agricultural Research Service.

temperatures obtained are not hot enough to insure destruction of all spoilage organisms that may be present in the food.

Pack—Designates how food is packed into containers. Specifies the temperature of food when packed into jars for canning, or the method of sweetening fruits for freezer packs.

Pectin—A substance occurring naturally in many fruits which causes the juice to thicken or gel after heating if the proper proportions of sugar and acid are present. Natural pectins are more prevalent in underripe fruit than mature or overripe fruit. Some fruits have enough natural pectins to make high quality jams and jellies. Others require addition of commercial pectins which are made from either citrus peel or apples.

pH—Measure of acidity of a product. The lower the pH the higher the acidity.

Preserve—To maintain the quality of food for consumption at a later time. Accomplished by canning, freezing, pickling, drying, or making jelly, jams, or preserves.

Processing—Heating food in closed canning jars to insure destruction of micro-organisms so the canned food will remain unspoiled and safe to eat. Acid foods—such as fruits, tomatoes, and pickles—and jams and preserves are safely processed in a boiling-water-bath. Low-acid vegetables (all vegetables except tomatoes) require processing at higher temperature by use of a pressure canner or pressure saucepan. Times required to insure an adequate process are specified in canning directions for each food.

Sirup Pack—Fruit is packed for freezing in a sugar sirup made by dissolving sugar in water.

Steam-pressure Canner—A large, heavy metal pan having a tight-fitting cover which is fitted with safety valve, steam vent or petcock, and a gage—either weighted or dial. Used for processing low-acid foods under pressure at high temperatures in order to insure their safety.

Steam-pressure Saucepan—Smaller than a canner. If equipped with a gage to maintain pressure at 10 pounds, it is suitable for processing food in pint jars.

Sugar Pack—Sugar is added directly to fruit and mixed gently to draw juice from fruit before packing into freezer containers.

Unsweetened Pack—Fruit packed for freezing without any sweetening added. It may be packed dry or covered with water.